Sequence_Listing SEQUENCE LISTING

<110> Ribaudo and Shields <120> B2 Microglobulin Fusion Proteins and High Affinity Variants <130> 67022 <140> 10/727,000 <141> 2003-12-02 <150> 09/719,243 <151> 2001-03-19 <150> PCT/US99/12309 <151> 1999-06-03 <150> 60/088,813 <151> 1998-06-10 <160> 20 <170> PatentIn Ver. 2.0 <210> 1 <211> 119 <212> PRT <213> Homo sapiens <400> 1 Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser 1 15 Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg 20 25 30 His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser
40
45 Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu 50 55 60 Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp 65 70 75 80 Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile 100 105 110 Val Lys Trp Asp Arg Asp Met 115 <210> 2 <211> 339 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: fusion protein

Sequence_Listing

Met Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu
1 10 15 Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val 20 25 30 Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu 35 40 45 Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr 50 60 Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile 65 70 75 80 Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr 85 90 95 Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala 100 105 110 Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn 115 120 125 Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro 130 135 140 Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp 145 150 155 160 Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser 165 170 175 Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val 180 185 190 Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu 195 200 205 Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Ala Ser Thr 210 215 220 Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Ala Ser 225 230 235 240 Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu 245 250 255 Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro 260 265 270 Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys 275 280 285 Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu 290 295 300 Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys 305 310 315 Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp Page 2

```
<210> 3
<211> 358
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: fusion protein
<400> 3
Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
1 1 5 15
Gly Leu Glu Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr
20 25 30
Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser
35 40 45
Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu 50 60
His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu 65 70 75 80
Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn 85 90 95
Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys
100 105 110
Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser 115 120 125
Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val
130 135 140
Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His
145 150 155 160
Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu
165 170 175
Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe 180 185 190
Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His
195 200 205
Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser 210 215 220
Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp
225 230 235 240
Ala Ser Thr Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly 245 250 255
Gly Ala Ser Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His
                                             Page 3
```

	260	So 265	Sequence_Listing 265					270				
Pro Ala Glu 275	Asn Gly	Lys Ser	Asn 280		Leu	Asn	Cys	Tyr 285	۷al	Ser	Gly	
Phe His Pro 290	Ser Asp	Ile Glu 295		Asp	Leu	Leu	Lys 300	Asn	Gly	Glu	Arg	
Ile Glu Lys 305	Val Glu	His Ser 310	Asp	Leu	Ser	Phe 315	Ser	Lys	Asp	Trp	Ser 320	
Phe Tyr Leu	Leu Tyr 325	Tyr Thr	Glu	Phe	Thr 330	Pro	Thr	Glu	Lys	Asp 335	Glu	
Tyr Ala Cys	Arg Val 340	Asn His	٧a٦	Thr 345	Leu	Ser	Gln	Pro	Lys 350	Ile	Val	
Lys Trp Asp 355	Arg Asp	Met										
<210> 4 <211> 24 <212> DNA <213> Artifi	icial Sed	quence										
<220> <223> Description of Artificial Sequence: primer												
<400> 4 ttcttcagca aggactggtc tttc												24
<210> 5 <211> 24 <212> DNA <213> Artificial Sequence												
<220> <223> Description of Artificial Sequence: primer												
<400> 5 attttcagca aggactggtc tttc												24
<210> 6 <211> 24 <212> DNA <213> Artificial Sequence												
<220> <223> Description of Artificial Sequence: primer												
<400> 6 gtgttcagca aggactggtc tttc												24
<210> 7 <211> 24 <212> DNA <213> Artificial Sequence												
<220> <223> Description of Artificial Sequence: primer												
<400> 7	<400> 7											

Page 4

```
Sequence_Listing
                                                                       24
taagtctgaa tgctccactt tttc
<210> 8
<211> 31
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: primer
                                                                       31
agggtaccat ggtttccgtg gagacgcaag c
<210> 9
<211> 40
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: reverse primer
                                                                       40
tcgaattcat gatgctagcc caatacgttt gaggagatgg
<210> 10
<211> 99
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Modified hB2m
      S55V
<400> 10
Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
1 5 15
Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro 20 25 30
Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
45
Val Glu His Ser Asp Leu Val Phe Ser Lys Asp Trp Ser Phe Tyr Leu
50 55 60
Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
65 70 75 80
Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp 85 90 95
Arg Asp Met
<210> 11
<211> 15
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: linker that
                                          Page 5
```

```
Sequence_Listing
      can be used in fusion proteins
<400> 11
Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15
<210> 12
<211> 5
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: linker that
      can be used in fusion proteins
<400> 12
Gly Gly Gly Ala Ser
1 5
<210> 13
<211> 21
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: signal peptide
<400> 13
Lys Tyr Leu Leu Pro Thr Ala Ala Gly Leu Leu Leu Leu Ala Ala
1 5 10 15
Gln Pro Ala Met Ala
              20
<210> 14
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: signal peptide
<400> 14
Met Arg Ala Lys Leu Leu Gly Ile Val Leu Thr Pro Ile Ala Ile Ser
Phe Ala Ser Thr
<210> 15
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
```

<223> Description of Artificial Sequence: c-myc tag

Page 6

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn

5

<212> PRT

<213> Artificial Sequence

```
<210> 16
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: ornithine
      decarboxylase 309-317
<400> 16
Ser Ser Glu Gln Thr Phe Met Tyr Tyr
<210> 17
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: HTLV TAX 11-19
<400> 17
Leu Leu Phe Gly Tyr Pro Val Tyr Val
<210> 18
<211> 9
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: HIV gag 77-85
<400> 18
Ser Leu Tyr Asn Thr Val Ala Thr Leu
1 5
<210> 19
<211> 10
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: pn2a.A3
<400> 19
Lys Leu Tyr Glu Lys Val Tyr Thr Tyr Lys
1 5 10
<210> 20
<211> 9
```

<223> Description of Artificial Sequence: influenza NP

Page 7

265-273

<400> 20 Ile Leu Arg Gly Ser Val Ala His Lys 1 5